June 30, 1925. 1,543,919

H. A. HABIGHORST

EXCELSIOR KNIFE

Filed May 4, 1923

Fig. 1.

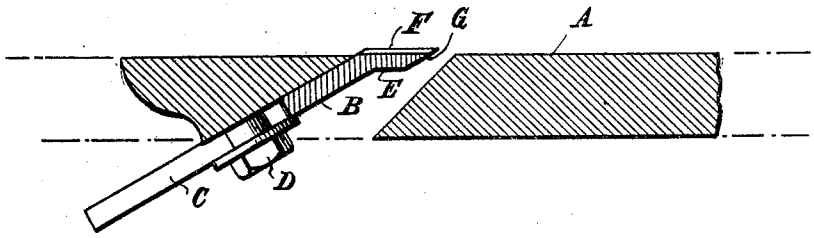
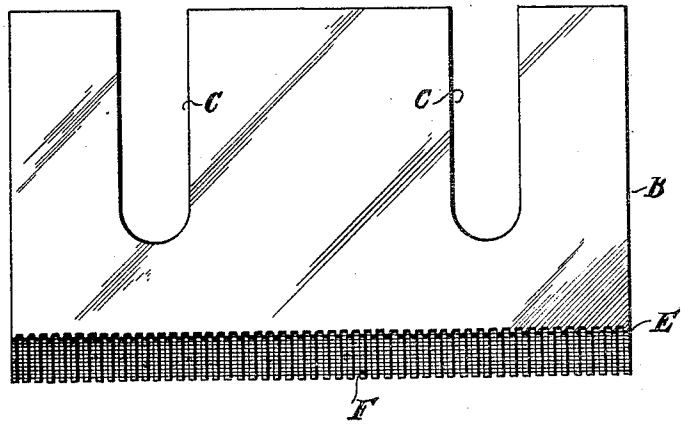


Fig. 2.



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By Bacon & Thomas Attorneys

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UNITED STATES PATENT OFFICE.

HARRY A. HABIGHORST, OF PORTSMOUTH, VIRGINIA.

EXCELSIOR KNIFE.

Application filed May 4, 1923. Serial No. 636,582.

To all whom it may concern:

Be it known that I, HARRY A. HABIGHORST, a citizen of the United States, residing at Cradock, Portsmouth, in the county of Norfolk and State of Virginia, have invented certain new and useful Improvements in Excelsior Knives, of which the following is a specification.

My invention relates to knives for use in manufacturing excelsior from blocks of wood etc., and it is my purpose to provide such a knife that will operate more satisfactorily in an excelsior machine than those in use at the present time, and one that will positively cut or shred either very fine or very coarse shavings from wood by proper adjustments.

In the excelsior machine in use at the present time, an adjustable knife with a corrugated face is used, which knife is bolted to the knife head, and drawn across the block of wood or other stock.

In all such knives that I am aware of, the corrugations are formed on the under side of the knife, and a so-called scoring knife or spur is placed in front thereof to properly score the wood, so that it will separate the excelsior shreds.

The primary fault with this type of knife is that the scoring knife or spur will have to be used should it be desired to make a rather coarse shred, and the knife blade is adjusted or raised with the endeavor to accomplish it, the cutting edge of the knife, which is the only part thereof which actually comes in contact with the wooden block, will act more in a planing fashion, and cut off corrugated ribbons not separating the shreds.

In use the scoring knife or spurs have been the cause of a great deal of waste in manufacturing excelsior, also a great waste in labor and expense to keep the scoring knives or spurs in working shape, and with my improved knife this fault is remedied, inasmuch as the scoring knives or spurs are not used at all with my new improved knife.

To more fully describe my invention, and with reference to the accompanying drawings, in which:

Fig. 1 is a side sectional view of the knife mounted upon a portion of an excelsior machine, and

Fig. 2 s a top plan view of the knife.

Referring now more particularly to the drawings, wherein like reference characters indicate corresponding parts, A represents a fragment, in section, of a cutter head of an excelsior machine. B is a knife having elongated holes C therein, by which the same may be properly adjusted by bolts D. The upper edge of the knife is bent at an angle of approximately 130° to the knife body B, as shown at E, and this bent portion lies entirely in a horizontal plane with respect to the excelsior machine. The upper face of this bent portion E is corrugated, as at F. There is, of course, also provided the beveled edge G to allow for the sharpening of the knife edge.

In using my knife, it will be obvious that as the wood block is held by two feed rollers and is fed down to the knife, the knife is drawn across the wood block and the corrugated bent face E of the knife will contact with the wooden block throughout the entire length of the corrugated part, and not merely at the extreme edge of the knife blade. It follows, therefore, that should the knife be adjusted for a fine cut or a very coarse one, the shredding of the wood will be positively accomplished, as the corrugations are all positively engaged in cutting or shredding the wooden block the entire length of said corrugations.

From the above, it will be seen that I have invented an excelsior knife that is very positive in its operation, simple and economical to manufacture, and one that will do all the work it is required to do irrespective of whether it is desired to make the shred very fine or very coarse.

Having thus described my invention, what I claim is:

1. An excelsior knife having a flat inclined forward end, cutting teeth at the forward edge of the inclined end, and separated corrugations extending rearwardly from the teeth.

2. An excelsior knife having a flat inclined forward end, cutting teeth at the forward edge of the inclined end, and separated corrugations upon the upper face of the inclined end extending rearwardly from the teeth.

3. An excelsior knife having a main body portion provided with a downwardly inclined flat forward end, cutting teeth at the forward edge of the inclined end, and separated corrugations upon the upper face of the inclined end extending rearwardly from the teeth, and a beveled grinding surface on

the under side of said inclined forward end.

4. An excelsior knife having a main body portion provided with a downwardly inclined flat forward end adapted to lie in a horizontal plane when the knife is in place, cutting teeth at the forward edge of the inclined end, and separated corrugations upon the upper face of the inclined end extending rearwardly from the teeth, and a beveled grinding surface on the under side of the inclined forward end.

In testimony whereof I affix my signature.

HARRY A. HABIGHORST.